



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,194	05/23/2006	Karl Kuhmann	290167US0PCT	1812
22850	7590	03/20/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
AUGHENBAUGH, WALTER				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
03/20/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

Office Action Summary

Application No.

10/580,194

Applicant(s)

KUHMANN ET AL.

Examiner

WALTER B. AUGHENBAUGH

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2008 and 12 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 7, 2008 has been entered.

WITHDRAWN REJECTIONS

2. The 35 U.S.C. 112 rejection of claim 4 has been withdrawn due to Applicant's amendment in claim 4 in the Amendment filed November 7, 2008.
3. The 35 U.S.C. 103 rejections of claims 1-8, 12 and 13 have been withdrawn due to Applicant's amendments in claim 1 in the Amendment filed November 7, 2008.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 is indefinite because it cannot be ascertained whether or not Applicant intends to claim the subject matter of claim 11 as part of Applicant's invention because claim 11 is dependent upon a cancelled claim.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roeber et al. (USPN 5,858,492) in view of Kawase et al. (USPN 4,737,536).

Roeber et al. teach a multilayered tube for conveying fluids such as cooling fluids (col. 7, lines 21-24) comprising an outer layer comprising a polyamide molding composition (layer II) and an inner layer consisting of a polypropylene molding composition (layer IV) (col. 1, line 66-col. 2, line 13 and Arrangements 4-8 in col. 6). Note the recitations "an outer layer" and "an inner layer" do not require that the outer layer is the outermost layer and that the inner layer is the innermost layer. Layer II of Roeber et al. corresponds to "an outer layer" when it is an outer layer of the tube (in the outer half of the multilayer composite) and Layer IV of Roeber et al. corresponds to "an inner layer" when it is an inner layer of the tube (in the inner half of the multilayer composite). Roeber et al. teach that a suitable polypropylene for the polypropylene molding composition is a propene-ethene block copolymer (col. 4, line 61-col. 5, line 6). Roeber et al. teach that the polypropylene molding composition may comprise customary additives such as stabilizers, which one of ordinary skill in the art would have recognized refers to heat stabilizers (col. 5, lines 34-40). Since the propene-ethene block copolymer is suitable as the sole polymeric component of the polypropylene layer (col. 4, line 61-col. 5, line 6), it is present in the layer in an amount of greater than 50% by weight. A goal of Roeber et al. is to improve the impact toughness of the tube (see col. 1, lines 18-22, col. 4, lines 38-44 and col. 5, lines 4-6).

Roeber et al. fail to explicitly teach that the propene-ethene block copolymer includes 0.5 to 20 % by weight of ethene in copolymerized form and that the stabilizer is present in an amount of at least 0.02% by weight of the polypropylene layer.

Kawase et al., however, disclose a polymeric composition for automobile parts such as bumpers comprising a propene-ethene block copolymer that comprises from 1 to 10 % by weight ethene in copolymerized form, and that the amount of ethene in copolymerized form must be from 1 to 10 % by weight in order to achieve a sufficiently high impact resistance and also a sufficiently high scratch resistance and moldability (col. 3, lines 39-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a propene-ethene block copolymer that comprises from 1 to 10 % by weight ethene in copolymerized form as the propene-ethene block copolymer of Roeber et al. in order to form a tube having a balance of suitable mechanical properties such as impact resistance and moldability.

In regard to the claimed amount of stabilizer, Roeber et al. teach that the amount of the specified agents (such as stabilizer) added is to be such that the desired properties are not seriously affected (col. 5, lines 38-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the amount of stabilizer in order to achieve the desired degree of heat stability depending on the particular desired end result, as long as the desired properties are not seriously affected, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). MPEP 2144.05 II.B.

Furthermore, in regard to the claimed amounts of stabilizer and propene-ethene block copolymer, “[g]enerally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical.” MPEP 2144.05 II.A.

In regard to claim 2, Roeber et al. teach that the tube comprises a bonding layer that joins the inner and outer layers (see, for example, Arrangement 4, where Layer II is bonded to Layer IV via a Layer III).

In regard to claim 3, the inner layer is adhesion-modified in the instances taught by Roeber et al. where the polyolefin layer comprises coupling agents (col. 5, lines 7-15).

In regard to claim 4, the inner layer comprises two sub-layers, for example, in the instance where the layers III and IV are of the same composition (see, for example, col. 2, lines 12-13) and are in contact with each other (see, for example, Arrangements 5-8).

In regard to claim 11, in the instance where Applicant intends to claim the subject matter of claim 11 as Applicant's invention (see 35 U.S.C. 112 rejection of claim 11 above), while Roeber et al. and Kawase et al. fail to explicitly teach that the thickness of the inner layer is at least 0.3 mm, Roeber et al. teach examples where pipes having an external diameter of 8 mm and a total wall thickness of 1 mm (col. 9, lines 36-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have varied the thickness of the inner layer of the tube taught by Roeber et al. and Kawase et al. depending on the size of the tube required for the particular desired intended purpose of the tube.

8. Claims 1-5, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleger (USPN 5,706,864) in view of Jacoby et al. (USPN 5,310,584) and in further view of Johoji et al. (USPN 6,562,907).

In regard to claim 1, Pfleger teaches a coolant line comprising an outer layer comprising a polyamide molding composition (col. 1, line 66-col. 2, line 6) and an inner layer consisting of a polyolefin molding composition (col. 2, lines 7-13). Polypropylene homopolymers fall within the scope of the “non-halogenated homopolyolefins” taught at col. 2, line 8 (since polypropylene homopolymers are “non-halogenated homopolyolefins”, and since Pfleger mentions polypropylene as an example of a homopolyolefin at col. 2, lines 36-37). Pfleger teaches that the polymers of the individual layers can be modified by additives to assist processing or application such as stabilizers (col. 2, lines 41-45). Since the additives mentioned at col. 2, lines 41-45 are all optional, embodiments where the inner layer of Pfleger consists of the polyolefin molding composition and the stabilizer fall within the scope of the teachings of Pfleger.

Pfleger fails to explicitly teach that the relative amount of the stabilizer in the inner layer is at least 0.02% by weight, and while Pfleger teaches that copolyolefins are a suitable material for the inner layer (col. 2, lines 7-13), Pfleger fails to explicitly teach that the polypropylene of the inner layer is a propene-ethene block copolymer having 0.5 to 20 % by weight of ethene in copolymerized form.

Jacoby et al., however, disclose a polypropylene composition for plastic articles that is stabilized with a stabilizer composition that is present in an amount of 0.18 wt. % (col. 13, lines 30-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a stabilizer in the composition of the inner layer in the tube of

Pfleger in an amount of 0.18 wt. % (an amount that is greater than the claimed minimum of 0.02 wt. %) since an amount of 0.18 wt. % is a well known relative amount of stabilizer to use in a polypropylene composition for plastic articles as taught by Jacoby et al.

In regard to the requirement that the polypropylene of the inner layer is a propene-ethene block copolymer, Johoji et al. disclose a vehicle part such as a hose, tube or fuel tank (col. 26, lines 47-53), that comprises a polypropylene composition having suitable impact resistance that comprises a block propylene-ethylene copolymer comprising from 7 to 85 % by weight ethylene (col. 14, line 52-col. 15, line 6). Therefore, one of ordinary skill in the art would have recognized to have used a block propylene-ethylene copolymer as the copolyolefin of the inner layer of the tube taught by Pfleger and Jacoby et al. since block propylene-ethylene copolymer comprising from 7 to 85 % by weight ethylene is a well known suitable copolyolefin for use as the material of an inner layer of a tube/fuel tank due to its suitable impact resistance as taught by Johoji et al.

In regard to the claimed ethene amount, Johoji et al. fail to specifically teach that the amount of ethylene is at least 0.5 % by weight and not more than 20% by weight. However, since Johoji et al. teach that the vehicle part has suitable impact resistance, one of ordinary skill in the art would have recognized to have varied the amount of relative amount of ethylene in the propylene-ethylene copolymer in order to achieve the desired impact resistance depending on the particular desired end result, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). MPEP 2144.05 II.B.

In regard to claim 2, Pfleger teaches that the coolant line comprises an intermediate layer that corresponds to the claimed bonding layer (col. 1, lines 58-65 and col. 2, lines 7-13).

In regard to claim 3, the polyolefins (which includes polypropylene as discussed above in regard to claim 1) of the inner layer of Pfleger that contain functional groups which produce compatibility with the external layer correspond to the claimed adhesion-modified inner layer (col. 2, lines 7-13). Alternatively, the inner layer of Pfleger is adhesion-modified in the instance when it is in contact with either the intermediate layer of Pfleger or the outer layer of Pfleger, because one of these layers is bonded to the inner layer, making the inner layer “adhesion-modified”.

In regard to claim 4, the intermediate layer of Pfleger corresponds to the claimed sublayer that is “adhesion-modified” (col. 1, lines 58-65 and col. 2, lines 7-13).

In regard to claim 5, Pfleger, Jacoby et al. and Johoji et al. teach the line as discussed above in regard to claim 1. Furthermore, Pfleger teaches a coolant line comprising an outer layer comprising a polyamide molding composition (col. 1, line 66-col. 2, line 6) and an inner layer consisting of a polyolefin molding composition (col. 2, lines 7-13). Polypropylene homopolymers fall within the scope of the “non-halogenated homopolyolefins” taught at col. 2, line 8 (since polypropylene homopolymers are “non-halogenated homopolyolefins”, and since Pfleger mentions polypropylene as an example of a homopolyolefin at col. 2, lines 36-37). Pfleger teaches that the polymers of the individual layers can be modified by additives to assist processing or application such as stabilizers (col. 2, lines 41-45). Since the additives mentioned at col. 2, lines 41-45 are all optional, embodiments where the inner layer of Pfleger consists of

the polyolefin molding composition and the stabilizer fall within the scope of the teachings of Pfleger.

Pfleger fails to explicitly teach that the relative amount of the stabilizer in the inner layer is at least 0.02% by weight and that the stabilizer is a sterically hindered phenol or a sulfur compound.

Jacoby et al., however, disclose a polypropylene composition for plastic articles that is stabilized with a stabilizer composition that comprises a sterically hindered phenol (a “hindered phenol”), where the stabilizer composition is present in an amount of 0.18 wt. % (col. 13, lines 30-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a stabilizer comprising a hindered phenol as the stabilizer of the inner layer of the line taught by Pfleger, Jacoby et al. and Johoji et al. since a stabilizer comprising a hindered phenol is a well known stabilizer for polypropylene compositions for plastic articles as taught by Jacoby et al., and to have used the stabilizer in an amount of 0.18 wt. % (an amount that is greater than the claimed minimum of 0.02 wt. %) since an amount of 0.18 wt. % is a well known relative amount of stabilizer to use in a polypropylene composition for plastic articles as taught by Jacoby et al.

In regard to claim 11, in the instance where Applicant intends to claim the subject matter of claim 11 as Applicant’s invention (see 35 U.S.C. 112 rejection of claim 11 above), Pfleger teaches that the inner layer is inert to the conveyed medium (i.e. that the inner layer is a barrier layer col. 1, lines 53-56). Pfleger, Jacoby et al. and Johoji et al. fail to explicitly teach that the inner layer has a thickness of at least 0.3 mm. However, since Pfleger teaches that the inner layer is a barrier layer, one of ordinary skill in the art would have recognized to have varied the

thickness of the inner layer in order to achieve the desired degree of barrier property depending on the particular desired end result, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). MPEP 2144.05 II.B.

In regard to claim 12, Pfleger teaches that the coolant line is at least partially corrugated (col. 1, lines 35-42).

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roeber et al. (USPN 5,858,492) in view of Kawase et al. (USPN 4,737,536) and in further view of Jacoby et al. (USPN 5,310,584).

Roeber et al. and Kawase et al. teach the line as discussed above in regard to claim 1.

Roeber et al. and Kawase et al. fail to explicitly teach that the stabilizer is a sterically hindered phenol or a sulfur compound.

Jacoby et al., however, disclose a polypropylene composition for plastic articles that is stabilized with a stabilizer composition that comprises a sterically hindered phenol (a "hindered phenol"), where the stabilizer composition is present in an amount of 0.18 wt. % (col. 13, lines 30-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a stabilizer comprising a hindered phenol as the stabilizer of the inner layer of the line taught by Roeber et al. and Kawase et al. since a stabilizer comprising a hindered phenol is a well known stabilizer for polypropylene compositions for plastic articles as taught by Jacoby et al., and to have used the stabilizer in an amount of 0.18 wt. % (an amount that is greater than the claimed minimum of 0.02 wt. %) since an amount of 0.18 wt. % is a well

known relative amount of stabilizer to use in a polypropylene composition for plastic articles as taught by Jacoby et al.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roeber et al. (USPN 5,858,492) in view of Kawase et al. (USPN 4,737,536) and in further view of Dupuy et al. (USPN 7,238,738).

Roeber et al. and Kawase et al. teach the line as discussed above in regard to claim 1.

Roeber et al. and Kawase et al. fail to explicitly teach that the polypropylene composition comprises from 0.1 to 50 % by weight of a nanosize filler.

Dupuy et al. teaches a thermoplastic material (such as polypropylene, col. 2, line 48) that has high barrier property due to the inclusion of a nanosize filler in the thermoplastic material (col. 1, lines 7-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a nanosize filler in typical filler amounts (such as less than 50% by weight) in the polypropylene composition of the line taught by Roeber et al. and Kawase et al. in order to improve the barrier property of the line since inclusion of a nanosize filler in a thermoplastic composition such as polypropylene improves the barrier property of the composition as taught by Dupuy et al.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roeber et al. (USPN 5,858,492) in view of Kawase et al. (USPN 4,737,536) and in further view of Ebner et al. (USPN 6,433,087).

Roeber et al. and Kawase et al. teach the line as discussed above in regard to claim 1.

Roeber et al. and Kawase et al. fail to explicitly teach that the inner layer comprises a metal deactivator.

Ebner et al., however, disclose a polypropylene tube that comprises a heat stabilizer and a metal deactivator, which are both characterized by Ebner et al. as “the usual additives” for polypropylene molding compositions of polypropylene tubes (col. 4, lines 15-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a metal deactivator in the polypropylene composition of the line taught by Roeber et al. and Kawase et al. since metal deactivator is a typical additive to polypropylene molding compositions of polypropylene tubes as taught by Ebner et al.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roeber et al. (USPN 5,858,492) in view of Kawase et al. (USPN 4,737,536) and in further view of Strebel et al. (USPN 7,375,162).

Roeber et al. and Kawase et al. teach the line as discussed above in regard to claim 1.

Roeber et al. and Kawase et al. fail to explicitly teach that the polypropylene of the inner layer has a melt flow rate of from 0.1 to 3 g/10 min.

Strebel et al., however, disclose a composition comprising a propylene-ethylene block copolymer (col. 3, lines 27-37) having a melt flow rate of from 0.1 to 30 g/10 min (col. 9, line 66-col. 10, line 14) for hoses, tubing and automotive applications (col. 1, lines 33-36 and col. 5, lines 4-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the propylene-ethylene copolymer having a melt flow rate of from 0.1 to 30 g/10 min of Strebel et al. as the copolyolefin of Pflieger since propylene-ethylene

copolymer having a melt flow rate of 0.1 to 30 g/10 min is a suitable material for use for hoses, tubing and automotive applications as taught by Strebel et al.

13. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roeber et al. (USPN 5,858,492) in view of Kawase et al. (USPN 4,737,536) and in further view of Iwata et al. (USPN 7,232,597).

Roeber et al. and Kawase et al. teach the line as discussed above in regard to claim 1.

Roeber et al. and Kawase et al. fail to explicitly teach that the line is corrugated in subsections or in its entirety, and that the line is configured as a corrugated pipe having a smooth inner layer.

Iwata et al., however, disclose a corrugated tube (col. 1, lines 5-10) that has high mechanical strength, high flexibility and a high flexural resistance (col. 1, lines 33-36 and col. 8, lines 23-27) and that comprises a flat (smooth) inner layer (col. 1, lines 37-41 and col. 2, lines 45-54). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have corrugated the tube taught by Roeber et al. and Kawase et al. in order to improve the mechanical strength, flexibility and flexural resistance of the tube as taught by Iwata et al. and to have added a flat (smooth) inner layer to the tube since it is well known to add a flat (smooth) inner layer to a corrugated tube in order to render the inner surface of the corrugated tube flat (smooth) as taught by Iwata et al.

Response to Arguments

14. Applicant's arguments on pages 4-5 and 7-8 regarding the 35 U.S.C. 103 rejections of claims 1 and 9-11, as they pertain to the rejection of claim 1 over Pfleger (USPN 5,706,864) in

view of Jacoby et al. (USPN 5,310,584) and in further view of Johoji et al. (USPN 6,562,907) made of record in this Office Action, have been fully considered but are not persuasive.

Although Pfleger does not explicitly teach a propene-ethene block copolymer, Pfleger teaches copolyolefins (col. 2, lines 7-12), and propene-ethene block copolymers fall within the scope of a teaching of copolyolefins.

Applicant argues that the copolymer taught by Johoji at col. 14, line 52-col. 15, line 6 is an additive, and therefore cannot be a "polyolefin molding composition" as claimed, but since the copolymer is present in an amount of from 1 to 99% by weight (col. 13, lines 29-39), the copolymer is not limited to being an additive (for example, if the copolymer is 95% of a blend, the copolymer is not an additive of the blend).

In regard to Applicant's argument regarding the teaching of Pfleger at col. 1, lines 54-55 that the "tube should include an 'internal layer inert to the conveyed medium'", the copolyolefin taught by Pfleger is a suitable material for the internal layer of the tube (col. 2, lines 14-19). The recitation that the line is a "coolant line" is an intended use limitation, Which does not contribute any further structural and/or compositional limitations other than those that are explicitly recited in the claims.

Examiner also notes that an amount of ethene in the copolymer taught by Johoji of 5 to 20% falls within the scope of the teaching of Johoji since Johoji teach that copolymer-1 should have no more than 5.0% ethene and that copolymer-2 should have no less than 7.0% ethene for the block copolymer to function suitably in accordance with the goals of Johoji, where the ratio of copolymer-1 to copolymer-2 is from 30/70 to 90/10 (col. 15, lines 4-16).

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is (571) 272-1488. While the examiner sets his work schedule under the Increased Flexitime Policy, he can normally be reached on Monday-Friday from 8:45am to 5:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Walter B. Aughenbaugh
03/13/09

/Walter B Aughenbaugh /
Examiner, Art Unit 1794